

Country : POLAND  
CATEGORY : General Biology. B  
          : General Histology.  
ABS. JOUR. : RZBiol., No. 3 1959, No. 9635  
AUTHOR : Ber, Artur; Grott, Ewa.  
INST. :  
TITLE : Studying the Melanophore Reaction. 2nd Report.  
          : Locally Limited Color Changes in Frogs.  
ORIG. PUB. : Endokrynol. polska, 1956, 7, 195-203  
ABSTRACT : Locally applied pressure on the skin of frogs  
          : produces color changes which are caused by  
          : dilatation and contraction of melanophores.  
          :  
          : See also: RZh Biol. 1958, 96597.

CARD: 1/1

BER, A.

EXCERPTA MEDICA Sec.3 Vol.11/8 Endocrinology Aug 57

1481. BER A. Zskt. Endokrynol. AM, Łódź. \*Endokrynologia w sztuce. Doniesienie 2. Bożek staroegipski Bes. Doniesienie 3. Maszkarony zamku w Pieskowej Skale. Endocrinology in art. 2. The god Bes of ancient Egypt. 3. Sculptured monsters at the castle in Pieskowa Skala ENDOKR. POL. 1956, (270-275 and 276-279) Illus. 8
- II. After examining approx. 100 statuettes of the god Bes from various museums and from different epochs, it is concluded that the original of that god was a hypothyroid dwarf. In the course of time the statuettes, which were manufactured 'en masse', deviated more and more from the original, though preserving some of its characteristic traits. It is supposed that Bes was created not in Africa but on the coasts of Asia, most probably in the Hectic State in Asia Minor.
- III. Some sculptured monsters discovered at the castle in Pieskowa Skala show characteristic features of hypothyroidism. They are probably to be interpreted as the proof of a widely spread endemic goitre and hypothyroidism in the mountain region of Cracow in the 16th century.
- Ber - Łódź (III, 1, 5, 6\*)

*BeB, A*

POLAND/Human and Animal Physiology - Digestion.

V-7

Abs Jour : Ref Zhur - Biol., No 1, 1958, 4077

Author : A. Ber., H. Mikolajczyk

Inst : -

Title : Studies on the Hyaluronidase-Hyaluronic Acid System.  
Effect of Hyaluronic Acid on the Healing of Experimental  
Gastric Ulcers in Rats.

Orig Pub : Patol. polska, 1957, 8, No 1, 31-36

Abstract : Hyaluronic acid speeded in rats the healing of gastric  
ulcers, produced by Selye's method, by stimulating the  
development of granulation tissue and connective tissue.  
Hyaluronidase did not have any effect.  
Experimental ulcers in rats may be observed roentgenolo-  
gically.

Card 1/1

*B. K.*

POLAND / Physical Chemistry. Electrochemistry.

B

Abs Jour: Ref Zhur-Khimiya, No 16, 1958, 53109.

Author : Kemulya, Ber, Doylido.

Inst : Not given.

Title : A Polarographic Study of the Anodic Oxidation of  
a Lead Amalgam in Alkaline Solutions.

Orig Pub: Roczn. chem., 1957, 31, No 1, 205-212.

Abstract: The anodic waves of a Pb amalgam were studied in buffer solutions having a pH from 8-13. In solutions having pH=9 the anodic wave is splitting and the maximum current equals that observed in neutral solutions and is reached at  $E = 0.2v$  (sat.c.e.). The composition and concentration of a buffer solution effects the nature of polarographic waves. The effect of a current suppression as a result of an adsorption process can be noted (a disap-

Card 1/2

POLAND / Physical Chemistry. Electrochemistry.

B

Abs Jour: Ref Zhur-khimiya, No 16, 1958, 53109.

Abstract: appearance of oscillating, formation of a current minimum). In alkaline solutions containing a complexing agent (tartrate) at  $E = -0.5v$  one wave is produced with a height corresponding to the diffusion current. The observed abnormalities are explained by the formation of a  $Pb(OH)_2$  (precipitate or basic salt) which is being adsorbed on the electrode surface (R.Zh.Khimiya, 1958, 17222). An electrolytical method for Pb amalgam preparation is described.

Card 2/2

BER, Artur; ZIELENIŃSKI, Jerzy

Effect of prolonged starvation on limb regeneration in the frog.  
*Xenopus laevis*. *Pat.Polska* 9 no.1:35-38 Jan-Mar '58.

1. Z Zakładu endokrynologii A.M. w Łodzi Kierownik: prof. dr A. Ber  
adres autora: Łódź, ul. 22 Mopca 29/7.

(STARVATION, eff.

on limb regen. in frog (Pol))

(REGENERATION,

eff. of starvation on limb regen. in frog (Pol))

EXCERPTA MEDICA Sec 3 Vol 14/2 Endocrinology Feb 60

424. INFLUENCE OF NERVOUS AND PSYCHICAL FACTORS ON OVULATION  
SPERMIOGENESIS AND COPULATION IN THE FROG XENOPUS LAEVIS  
(DAUDIN) - Wpływ czynników nerwowych i psychicznych na jajczkowanie,  
spermiogenezę i kopulacje u żab xenopus laevis daudin - Per A. and  
Zieleniewski J. Zakład Endokrynol. A.M. w Łodzi - ENDOKR. POL.  
1950, 10/2 (83-90) Graphs 1

BER, Artur; DRYZEK-MIKOLAJCZYK, Laurencja; MIKOLAJCZYK, Henryk

Studies on hyaluronidase-hyaluronic acid system. 5. Mechanism of growth in a concentrated form of certain staphylococcal strains in a bouillon with added hyaluronic acid. Med. dosw. mikrob. 11 no.3:233-292 1959.

1. Z Zakładu Endokrynologii A. M. w Łodzi B. kierownik: prof. dr A. Ber.

(STAPHYLOCOCCUS, culture) (HYALURONIC ACID, pharmacol.)

BER, Artur; DRYZEK-MIKOLAJCZYK, Laurencja; MIKOLAJCZYK, Henryk

Studies on hyaluronidase-hyaluronic acid system. 6. Mucopolysaccharide nature of substances produced by certain strains of Staphylococcus albus. Med. dozw. mikrob. 11 no.3:293-303 1959.

1. Z Zakładu Endokrynologii A. M. w Łodzi B. kierownik: prof. dr A. Ber.  
(STAPHYLOCOCCUS, metab.) (MUCOPOLYSACCHARIDES, metab.)  
(HYALURONIC ACID, pharmacol.)

BER, Artur; MIKOLAJCZYK, Henryk

A new method for the production of experimental ulcers of the stomach in rats. Report 1. Local injections of histamine. Pat. Polska 11 no.2:145-157 '60.

1. Z Zakładu Endokrynologii A.M. w Łodzi b Kierownik: Prof. dr Artur Ber.

(PEPTIC ULCER exper)  
(HISTAMINE pharmacol)

BER, Artur; MIKOLAJCZYK, Henryk

A new method for the production of ulcers of the stomach in rats.  
Report 2. Local injections of pepsin. Pat.polska 11 no.2:159-163  
'60.

1. Z Zakładu Endokrynologii A.M. w Łodzi. b. Kierownik: Prof. dr  
Artur Ber.

(PEPTIC ULCER exper)

(PEPSINS exper)

BER, Artur; MIKOLAJCZEK, Henryk

A new method for the production of experimental ulcers of the stomach in rats. Report 3. Local injections of sodium chloride. Pat.polska 11 no.2:165-169 '60.

1. Z Zakladu Endokrynologii A.M. w Lodzi b. Kierownik: Prof. dr Artur Ber.

(PEPTIC ULCER exper)

(SODIUM CHLORIDE pharmacol)

BER, Andrzej

Quaternary of the Chodelak Hollow. Kwartalnik geol 6 no.4:  
747-748 '62.

1. Zakład Zdjęć Geologicznych, Instytut Geologiczny, Warszawa.



BER, A.G.

19809 BER, A. G.

Ob otkrytii effuzivnykh porod v mexoxoe tsentral'noy chasti turgayskoy vpadiny, Doklady

Akad. Nauk SS R, Novaya Seriya, T. LXVII, Nol, 1949, S. 121-23

SO: LETOPIS ZHURNAL STATEY -Vo., 27, Moskva, 1949

*BER, A.G.*

USSR/Geology - Petrography

Card 1/1 : Pub. 22 - 35/49

Authors : Ber, A. G.

Title : About the paleogenic erosion crust in the Turgansk depression

Periodical : Dok. AN SSSR 98/4, 637-639, Oct. 1, 1954

Abstract : Geological data on the growth of the paleogenic erosion crust in the Turgansk depression are presented. Map, showing the geomorphological elements and the extension of the Oligocene erosion crust in the northern part of the depression, is included. One USSR reference (1954).

Institution : ...

Presented by : Academician D. V. Nalivkin, June 26, 1954

BER, A.G.

New data on Cretaceous sediments in the northern part of the  
Turgay Gates. Sov. geol. no.62:3-23 '57. (MIRA 11:6)

1.Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut.  
(Turgay gates--Geology, Stratigraphic)

BKR, A.G.

Mesozoic effusive sedimentary formation in the northern part of the  
Turgay Gates [with summary in English]. Sov. geol. 1 no.3:22-37  
Mr '58. (MIRA 11:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut.  
(Turgay Gates--Geology, Stratigraphic)  
(Rocks, Sedimentary)

BER, A.

The age of the foldings near Dobrzyn. Eul geolog PAN 8 no.1:49-52  
'60.

1. Department of Quaternary Geology, University, Warsaw. Presented  
by S. Z. Rozycki.

(Folds(Geology))

BER, A.G.

Isolation of the Antopol' series of the Miocene in White Russia.  
Inform.sbor. VSEGEI no.43:83-95 '61. (MIRA 14:12)  
(White Russia--Geology, Stratigraphic)

KAPLAN, L.M.; SHAPIRO, L.L.; BER, A.S., inzh., nauchn. red.

[Operation and production planning in construction and  
assembling organizations] Operativno-proizvodstvennoe  
planirovanie v stroitel'no-montazhnykh organizatsiakh.  
Leningrad, Stroiizdat, 1964. 170 p. (MIRA 17:6)

BER, A. E.

USSR/Engineering—Building work

Card 1/1

Authors : Ber, A. E., and Verpgo, G. S., Engineers

Title : Elevators with taut cables in place of guide rails used in building the Moscow University

Periodical : Mekh. Stroi. 11/2, 29-31, February 1954

Abstract : The use of tightly stretched cables as guide rails for elevators used in construction work was found to be economical. The elevator lifts a ton with the speed of 1 m/sec and is found to have a number of additional advantages. Half-tone cut and drawings.

Institution : .....

Submitted : .....

*BER, A.E.*

USSR/Engineering - Structure

Card 1/1 : Pub. 70 - 10/11

Authors : Ber, A. E., and Shvedov, P. N.

Title : ~~Assembly of emblems and other decorative fixtures on the tall Moscow University building~~  
Assembly of emblems and other decorative fixtures on the tall Moscow University building

Periodical : Mekh. stroi. 4, 29-31, Apr 1954

Abstract : The methods and devices used in lifting and assembly of dome sections and emblems on the 52-meter tall tower of the newly erected Moscow University building, are described. Illustrations; drawings.

Institution : .....

Submitted : .....



BER, B.

LAPINSKIY, I., inzhener; BER, B., inzhener.

Refrigeration equipment in the State Department Store. Khol.  
tekh. 31 no. 2:52-56 Ap-Je '54. (MIka 7:11)  
(Refrigeration and refrigerating machinery)

BER, B.A.; KLIMOV, A.G.; LYUDSKOV, B.P. redaktor; ROSLOV, G.I., tekhnicheskiiy redaktor.

[Installation, repair and operation of refrigeration equipment] Montazh, remont i eksploatatsiia kholodil'nogo oborudovaniia, Moskva, Gos. izd-vo torgovoi lit-ry, 1955. 280 p. (MLA 8:8)  
(Refrigeration and refrigerating machinery)

*BER, BORIS ARKAD'YEVICH*

BER, Boris Arkad'yevich; KLIMOV, Aleksey Georgiyevich; SINEL'NIKOVA, Ts.B.,  
red.; MEDRISH, D.M., tekhn.red.

[From refrigerating machinery] Freonovye kholodil'nye ustanovki.  
Moskva, Gos.isd-vo torg.lit-ry, 1957. 183 p. (MIRA 10:12)  
(Refrigeration and refrigerating machinery)

*ABR 13.A.*  
BHR, B., inzh.

Installing freon refrigerating units in commercial concerns. Khol.  
tekh. 34 no.4:66-67 O-D '57. (MIRA 11:1)  
(Refrigeration and refrigerating machinery)

BER, B., inzh.; KUZNETSOVA, A., inzh.

Standards for refrigeration equipment of food stores. Khol.tekh. 35  
no.5:49-51 S-0 '58. (MIRA 11:11)

1. Vsesoyunnyy nauchno-issledovatel'skiy institut kholodil'noy  
promyshlennosti.  
(Food--Preservation) (Refrigeration and refrigerating machinery)

BFR, B., inzh.

Response to the A.Solodovnik's article. Khol.tekh. 3"  
no.1:59-61 Ja-F '60. (MIRA 13:5)  
(Refrigeration and refrigerating machinery)  
(Solodovnik, A.)

BER, Boris Arkad'yevich; KUZNETSOVA, Anastasiya Aleksandrovna; GOGOLIN, A.A.,  
Kand. tekhn. nauk, nauchnyy red.; KAPLUN, M.S., red.; BRODSKIY, M.P.,  
tekhn. red.

[New types of commercial refrigerating equipment] Novye vidy togo-  
vogo kholodil'nogo oborudovaniia; nauchnoe soobshchenie. Moskva,  
Gos. izd-vo torg. lit-ry, 1961. 44 p. (MIRA 14:10)  
(Refrigeration and refrigerating machinery)

BER, B.A., inzh.

New types of commercial refrigeration equipment. Khol'tskh. 3<sup>o</sup> no.4:  
73.76 JI-Ag '62. (MIRA 17:2)

BER, B.A., inzh.

New type of refrigerating equipment for commercial enterprises.  
Khol. tekhn. 39 no.5:66-68 S-O '62. (MIRA 16:7)

(Refrigeration and refrigerating machinery)

BER, A. Ya.

BER, A. Ya. "The significance of Knapp's adrenal test for the diagnosis of glaucoma", Oftalmol. zhurnal, 1948, No. 4, p. 176-79.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 10, 1949).

CA

29

Checking the volumetric method of Lee for the determination of tannin. 1. Ber. *Kochernno-obschaya Uchen. U. S. S. R.* 1912, 277-R; *Chem. Zvest.* 1913, 11, 2001. After checking the method of Lee for the detn. of pyrogallol, it was found that only 1.5 g. of powder and 25 cc. of the tanning soln. were sufficient for the test. This is about 25% of the amt. required by the official method. The method is superior to that of Löwenthal both in speed and in accuracy of detn. of end point. M. G. Moore

ASV 114 METALLURGIKA, LITERATURE CLASSIFICATION

EXCERPTA MEDICA Sec 5 Vol. 10/10 Pathology Oct 57

3083. BER I. and BER A. Zakl. Endokrynol. A.M., Łódź. \* Zęby w endokrynach.  
The teeth in endocrine disease ENDOKR. POL. 1956, 7 (51-72)  
Illus. 29

Discussion of the aberrations found in a number of cases. In pituitary dwarfism a poor development and wide separation may be found, as opposed to the more common teeth-crowding, probably due to early inhibition of skeletal development and dentition. In one case of gigantism crowding of the teeth was observed. In hypothyroidism and mongolism delayed and underdeveloped teeth with a tendency to caries were observed. (III, 5, 6)

BER, I.

Simple method of counting driver wages. Avt. transp. 37 no.9:28  
S '59. (MIRA 12:12)  
(Transportation, Automotive--Accounting)

BER, I.

Our suggestion. Avt. transp. 42 no.7:39 JJ '64.

(MIRA 17:11)

1. Zamestitiel' nachal'nika avtouppravleniya Komi ASSR.

KOL'NER, Semen Vladimirovich; KISELEVA, N.P., inzh., ved. red.; BER,  
I.Ya., inzh. red.; SOROKINA, T.M., tekhn. red.

[Deburring gear wheels]Zachistka zausentsev zubchatykh koles.  
Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958.  
19 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt.  
Tema 10. No.M-58-84/15) (MIRA 16:3)  
(Gear cutting)

BER, I.Ya., inzh.; SHELKOV, N.I., inzh., ved. red.; TOLMACHEV, V.B.,  
inzh., red.; SOROKINA, T.M., tekhn. red.

[Work on turning, turret and automatic metal-cutting machines;  
abstracts] Tokarnye, revol'vernye i avtomatnye raboty; referativ-  
nyi sbornik. Moskva, Filial Vses.in-ta nauchn. i tekhn. in-  
formatsii, 1958. 26 p. (Peredovoi nauchno-tekhnicheskii i pro-  
izvodstvennyi opyt. Tema 10. No.M-58-364/49) (MIRA 16:3)  
(Metal cutting--Abstracts)

BER, K.M.

[History of animal embryology; observations and reflexions]  
Istoriia razvitiia zhivotnykh; nabludeniia i rasmyshleniia. Moskva,  
Izd-vo Akademi nauk SSSR, 1953. 625 p. Vol. 2. (MLRA 7:2)  
(Birds--Embryology) (Embryology)

BR, L.

5607 Ber, 1, Individualnyy friktsionnyy tm-2 (arbel' sluzhishchetal').  
M., MFTInf, 1951. 3 s.s chert. 22 sm. (Sovet Promysl. Kooperatsii RSFSR  
Rospromsovet . Tseln. upr. obmen opytom v promysl. kooperatsii. Inform. Listok).  
20,000 ekz. kaspil.-net. ukazan v vop. dan.--(55-1563) 67.1.05-83 621.34

SO: 'Khnishnaya Letopis', Vo. 1, 1955

BER, L.B.; VAINBLAT, Yu.K.

Method of quantitative absorption X-ray microscopy. Zhv. lab.  
31 no.10:1210-1211 '65. (CIRA 19:1)

*BER, L. E.*

AUTHOR: Ber, L. E. (Perm')

24-11-10/31

TITLE: On the theory of thermo-gravitational convection under conditions of turbulence. (K teorii termogravitatsionnoy konveksii v usloviyakh turbulentnogo rezhima).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.11, pp. 75-83 (USSR)

ABSTRACT: Approximate equations are derived which express the super-position of the turbulent forced and the free heat convection, Eqs.(3.14) and (3.15), p.80. The "turbulent viscosity" and the "turbulent heat conductivity", which figure in the equations, were studied for a flow in a circular cylindrical tube by evaluating the published experimental results of a number of authors (Refs.1-3). An approximate solution is given of the super-position of turbulent forced and free heat convection in a circular vertical tube and the obtained results are compared with experimental data published by Watzinger and Johnson (Ref.2). Acknowledgments are made to I. G. Shaposhnikov and G. A. Ostroumov for their criticism of the problems dealt with in the paper.

Card 1/1

There are 5 figures, 1 table and 4 references, 1 of which is Slavic.

SUBMITTED: July 15, 1956.

AVAILABLE: Library of Congress.

HER, L.B.

Method for solving problems on nonisothermic turbulent convection  
in a canal between two parallel planes. Zhur.tekh.fiz. 29 no.1:  
61-69 Ja '59. (MIRA 12:4)

1. Sel'skokhozyaystvennyy institut im. akad. D.N. Pryanishnikova,  
Perm'.

(Heat--Transmission)

S/179/62/000/006/005/022  
E114/E414

AUTHOR: Ber, L.E. (Perm')  
TITLE:

Solution of the problem of the superposition of turbulent forced and free thermal convection in a vertical tube when internal sources of heat are present in the fluid

PERIODICAL: Akademiya nauk SSSR. Izvestiya, Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye, no.6, 1962, 25-32

TEXT: The differential equations expressing the laws of conservation of momentum and energy for the steady turbulent flow of a fluid in a vertical tube of circular section with uniformly distributed sources of heat are written down. It is assumed that the flow is stabilized hydrodynamically and thermally, i.e. the mean values of the pulsating quantities are time independent, the flow is axially symmetric, the radial component of the mean velocity is zero, the physical properties of the fluid are constant, apart from the density which is a function of temperature, and the temperature of the wall of the tube varies  
Card 1/3

S/179/62/000/005/005/022  
E114/E414

Solution of the problem of ...

linearly. The differential equations are transformed by introducing dimensionless variables. For the solution of these equations the three-layer model of a turbulent stream due to Karman is used: a laminar layer along the wall, an intermediate layer and a turbulent stream core. In the solution for the turbulent core the molecular viscosity and thermal conductivity are neglected and only the turbulent viscosity and turbulent thermal conductivity retained; the opposite approximation is employed in the laminar layer along the wall. In the intermediate layer both sets of coefficients have to be taken into account. An empirical formula (R.C.Martinelli, Trans. ASME, no.8, 1947, 69) for the velocity is used to determine the turbulent viscosity in the intermediate layer and the turbulent thermal conductivity is deduced from this. The radial variation of temperature in the intermediate layer is obtained and hence the temperature and velocity at the boundary between the intermediate layer and the turbulent core. Expressions are given for the zero and first order approximations to the velocity and temperature in the turbulent core. Velocity and temperature

Card 2/3

Solution of the problem of ...

S/179/62/OOC/006/005/022  
E114/E414

profiles are given for various values of the relative density of the internal heat sources. Various particular cases of the direction of the forced motion of the fluid and of the axial temperature gradient are considered. The heat exchange between the walls of the tube and the fluid in the case when the internal sources of heat are absent is calculated and curves are given of the relation between the Nusselt and Reynolds numbers. The effect of free convection on the heat exchange is also calculated. There are 3 figures.

SUBMITTED: May 12, 1962

Card 3/3

BER, L.E. (Perm')

Solution of equations of mixed turbulent convection in a vertical  
pipe. Izv.AN SSSR.Otd.tekh.nauk.Mekh.i mashinostr. no.3:163-164  
My-Je '63. (MIRA 16:8)

(Pipe--Hydrodynamics)

F.R, I.V SIMONOVICH.

Ryby Presnykh vod SSR i Sopredel'nykh Stran. (Fish of  
Fresh Waters of the USSR and Adjoining Countries) Chast 1  
Izd. 4. Isprav. i Dopol. Moskva, Izd-vo Akademii Nauk SSSR,  
1948- v. At Head of Title: Akademiya Nauk SSSR.  
Zoologicheskii Institut. Lib. Has:

So: N/5  
728  
.B4

BER, Nadezhda S.

BER, Nad-zhda S. Izdaniia Irkutskogo Gosudarstvennogo universiteta za desiat' let ego sushchestvovaniia, 1918-1928; bibliograficheskii ukazatel'. Irkutsk, Izd. Irkutskogo univ., 1930. (Trudy biblioteki Irkutskogo universiteta. No. 2.).

DLC: Z5055.R913

So: LC, Soviet Geography, Part II, 1951/Unclassified.

BER, P.M.

Pay more attention to the problems of lowering the costs of  
starch products. Sakh.prom. 35[1.e. 36] no.2:52-55 F '62.  
(MIRA 15:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut krakhmalopra-  
tochnoy promyshlennosti.  
(Starch industry—Costs)

BER, P.M.

Improve the establishment of norms for the expenditure of raw materials in the manufacture of raw potato starch. Sakh. press. 37 no.5:55-59 My '63. (MIRA 16:6)

1. Tsentral'nyy nauchno-issledovatel'skiy institut krakhsalopatochnoy promyshlennosti.  
(Starch industry--Production standards)

BER, P.M.

Make wider use of the experiences of progressive enterprises.  
Sakh.prom. 38 no.3:49-51 Mr '64. (MIFA 17:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut krakhsalopatochnoy promyshlennosti.

KUCHINSKIY, M.; DORFMAN, F., tekhnolog; SEREBRYANNIKOVA, Kh., kand.khimiicheskikh nauk; BER, V., inzh.; SHEHEBANOV, P.; POLYAKOV, V., ratsionalizator (Sverdlovsk)

New developments in factories. Vest.prom.i khud.promys. 1 no.2/3; 36 N-D '60. (MIFA 14:4)

1. Direktor fabriki "Kommunar", Orsha (for Kuchinskiy). 2. Fabrika "Rezinoprom" (for Dorfman). 3. Direktor fabriki "Shchetotchnik, Rostov (for Shehebanov).  
(Manufacture—Technological innovations)

BER, V.G.

Protection of botanical collections from pests. Bot.zhur.  
44 no.9:1261-1270 S '59. (MIRA 13:2)

1. Botanicheskiy institut im.V.L.Komarova AN SSSR, Leningrad.  
(Plants--Collection and preservation)

BER, V.G.

Protection of botanical collections from injurious insects. Analele  
biol 14 n.s.2:164-178 Ap-Je '60. (EEAI 9:11)  
(INSECTS): (HERBARIA)

BER, V. G.

Protection of botanical collections from pests. Bot. zhur. 48  
no.3:384-395 Mr '63. (MIRA 16:4)

1. Botanicheskiy institut imeni V. L. Komarova AN SSSR,  
Leningrad.

(Plants--Collection and preservation)  
(Insecticides) (Insect baits and repellents)

SEREBRENNIKOVA, A.G.; BER, V.L.

Gluing, dyeing, and painting of articles made of polystyrene.  
Plast.massy no.2:46-48 '62. (MIRA 15:2)  
(Styrene polymers)

BELOUS, M.Ye., inzh.; BER, Ya.I., inzh.; VINOKUROV, I.S., inzh.

Manufacture and installation of corrugated bulkheads in whalers.  
Sudostroyeniye 25 no.4:36-40 Ap '59. (MIRA 12:6)  
(Whalers)

S/137/61/000/011/016/123.  
A060/A101

AUTHORS: Ber, Ya.M., Gunne, Kh.E., Chashinev, A.V., Yanushkovskiy, V.A.

TITLE: Automation of separate aggregates in dressing and agglomeration plants by means of radiometric instruments

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 20, abstract 11V140 (V sb. "Radioakt. izotopy i yadern. izlucheniya v nar. kh-ve SSSR, v. 3", Moscow, Gostoptekhizdat, 1961, 159 - 161)

TEXT: Results of the testing of radiometric instruments for the automation of bunker loading are cited. Two  $Co^{60}$  radiation sources are placed upon the inner wall of the bunker. The first one, controlling the upper level, may irradiate two sensors, one of which transmits a signal as to the state of the bunker to the dispatcher, and the second controls the position of the automatic rack. If the bunker is filled up to the upper level, then the source affixed to the bogie cannot irradiate the sensor, as result of which the bogie will not remain above the bunker. Now if the bunker is not filled up, then the irradiation of the cassette will lead to the stopping of the bogie. УПАП-2а (UFAP-2a) from the Tallin KIP factory was used as the radiometric device. The radiation source was

Card 1/2

Automation of separate aggregates ...

S/137/61/000/011/016/123

A060/A101

of comparatively low activity (4.5 mg-equiv. of Ra for each level). The sensitivity and response time of the scheme turned out to be entirely satisfactory for the automatic rack velocity of 0.3 m/sec. At the level of the operating platform near the bunker the radiation dosage was 0.025  $\mu$  R/sec, whereas at the level of the scale cars, under the bunker, there was practically no radiation.

A. Pokhvisnev

[Abstracter's note: Complete translation]

Card 2/2

ZYTNER, David Yakovlevich; KIRYACHEK, Andrey Yakovlevich; BER,  
Ya.M., inzh., retsenzent; GRACHEV, A I., inzh., nauchn.red.;  
VAYTS, V.M., red.

[Automated control of the electric drives of continuous-  
line systems] Avtomatizirovannoe upravlenie elektroprivodami  
potechno-transportnykh sistem. Moskva, Energiia, 1965. 207 p.  
(MIRA 18:5)

BERA, G.

Scrap iron for steel mills. Constr Buc 16 no.737:4  
22 F'64.

MATEI, Gh., ing.; SANDU, S.; BERA, G.; CEBOTARENCO, M. POPESCU, N., ing.;  
TOMESCU, Petre

Reviewing the achievements. Constr Buc 16 no.7/2:1  
28 March 1964.

1. Postul de corespondenti voluntari de la craiova (for Matei).
2. Subredactia voluntara de la Ploiesti (for Cebotarencu).
3. Fabrica de geamuri-Scaeni (for Tomescu).

BARTHMES, Helmut, ing.(Vulcan); SASU, Nicolae (Vulcan); BEERA, G.A. (Arad)  
MAISHER, Viorica (Tibiu); SIRIOPOL, T., tehnician (Galati)

At some construction sites on the threshold of winter.  
Constr Buc 15 no.724:1 23 N '63.

1. Seful santierului 10-Vulcan al T.R.C.L.H. (for Barthmes).
2. Adjunct al sefului de santier 10-Vulcan al T.R.C.L.H.  
(for Sasu).

NERA, L.

"Production cost of maroquin-leather goods; methodology for the control of its evolution and means for its reduction."

p. 76 (Industria Usoara) Vol. 4, no. 2, Feb. 1957  
Bucharest, Rumania

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

HERA, L.

Drying vegetable-tanned pigskins for leather goods on glass plates. p.107.

INDUSTRIA USCAFA. (Asociatia Stiintifica a Inginerilor si Tehnicienilor din Romania si Departmentul Industrii Usoare din Ministerului Industrii si Comertului) Bucuresti, Romania. Vol. 6, no. 3, Mar. 1959.

Monthly List of East European Accessions (EEAI) ID, Vol. 8, no. 7, July 1959

Uncl.

BERACKO, PAVOL

*CH* *2muy*  
 Vinyl chloride. (A. Janda and Pavol Beracko, Czech. J. Chem., 1960, 36, 111, June 1, 1960). A soln. of  $\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$  (1:1) was converted at 180-7° over C impregnated with aq. soln. of  $\text{Hg}(\text{PO}_3)_2$  or  $\text{Hg}(\text{AsO}_3)_2$ . Conversion of  $\text{C}_2\text{H}_3\text{Cl}$  to vinyl chloride was 99.7% and the lifetime of the catalyst was 175 hrs., compared with  $\text{HgCl}_2$  which caused 90-8% conversion and lasted 90 hrs. J. Urbanek

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*INT*

BERNARD, G. A.

Bending of "gasha"-portland cement concrete with the reinforcement. Trudy GPI [Gruz.] no. 4:27-34 '63. (MIRA 17:5)

KURASHVILI, P.A.; KAPTOZIYA, T.S.I.; BERADZE, G.S.; MUKERIYA, N.G.

Age-related characteristics of the indices of protein-lipoid  
metabolism in white rats. Soob. AN Gruz. SSR 36 no.1:85-91  
0 1964. (MIFA 18:3)

1. Institut pediatrii Ministerstva zdavookhraneniya Gruzinskoy  
SSR, Tbilisi. Submitted April 16, 1964.

MARUASHVILI, T.; GAMBHARTNATH, G.; B. RAJASEKAR, M.

Use of electric fields in solving nonlinear equations. Trudy  
Vyssh. Shkoly. AN Gruz. SSR 1977-1982 Vol. (MIRA 17:6)

BARADZE, B.; CHECNIYA, Z. ; KUCHUMASHVILI, M.; and MEALOBLESHVILI, O.

"The Results of the Intracutaneous Allergic Test for Certain Eye Diseases"

Voprosy toksoplazmoza, report theses of a conference on toxoplasmosis, Moscow, 3-5 April 1961, publ. by Inst Epidemiology and Microbiology in. L. S. Samoylova, Acad. Med. Sci USSR, Moscow, 1961, 10pp.

BERADZE, N.; DZHINDZHIKHADZE, G.

Immediate and late results of the use of a suture on a penetrating  
wound of the eye. Trudy Tbil. GIDUV 6:247-254 '62. (MIRA 16:2)  
(EYE—WOUNDS AND INJURIES) (SUTURES)

BERADZE, N.I.

Cyclodialysis

Vest. oft., 31, no. 2, 1952

SIKHARULIDZE, I.A., zasl. deyatel' nauki, prof., otv. red.;  
BERADZE, N.I., dots., otv. red.; ARKHANGEL'SKIY, V.N.,  
prof., red.; ABULADZE, V.A., red.; ANTELAVA, D.N., kandi.  
med. nauk, red.; BOGOSLOVSKIY, A.I., doktor biol. nauk,  
red.; BUNIN, A.Ya., kand. med. nauk, rec.; VILENKINA, A.,  
doktor med. nauk, red.; VISHNEVSKIY, N.A., prof., red.;  
ZARUBIN, G.S., nauchn. sotr., red.; ITSIKSON, L.Ya., kand.  
med. nauk, red.; KRASNOV, M.L., zasl. deyatel' nauki, prof.,  
red.; MACHARASHVILI, P.D., zasl. vrach Gruz. SSR, red.;  
PUCHKOVSKAYA, N.A., prof., red.; RABKIN, Ye.B., prof., red.;  
RSHZHECHITSKAYA, O.V., kand. med. nauk, red.; ROSLAVTSEV,  
A.V., st. nauchn. sotr., red.; TARTAKOVSKAYA, A.I., kand.  
med. nauk, red.; FRADKIN, M.Ya., prof., red.; KHAYUTIN, S.M.,  
prof., red.; CHERNYAKOVSKIY, G.Ya., kand. med. nauk, red.;  
CHKONIYA, E.A., kand. med. nauk, red.; SFATILOVA, T.A.,  
doktor med. nauk, red.; YAKCVLEV, A.A., nauchn. sotr., red.

[Materials of the Second All-Union Conference of Ophthalmologists] Materialy Vsesoiuznoi konferentsii oftal'mologov. Tbilisi, Respublikanskoe nauchn. ob-vo oftal'mologov Gruz.SSR, 1961. 498 p. (MIRA 18:1)

1. Vsesoyuznaya konferentsiya oftal'mologov, 2d, Tiflis, 1961.
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BERADZE, N.I., dotsent, CHEKONIYA, E.A., dotsent, RACHESITIA, M.Ye.

Toxoplasmosis of the eye. Sbor. nauch. trud. SOGMI no.14:  
190-193 '63. (MIRA 13.9)

1. Kafedra glaznykh bolezney Tbilisskogo gosudarstvennogo  
instituta usovershenstvovaniya vrachev.

BERADZE, Nikolay Ivanovich

[Problem of surgical treatment of penetrating wounds of the eye]  
K voprosu khirurgicheskoi obrabotki proniksiushchikh ranenii glaza.  
Tbilisi, Sabchota Sakartvelo, 1959. 15 p. (MIRA 13:8)  
(EYE--WOUNDS AND INJURIES)

BERAHA, Raka, ins.

Seminar on ultrashort-wave techniques for the telegraph and  
telephone mechanics and technicians. PTT Zajed 4 no.3:48  
My-Js '62.

LEKVEISHVILI, Irakli Spiridonovich; BERAIA, Yason Kalistratovich

[Subtropical crops] [Subtropicheskie kul'tury. Tbilisi,  
Ganatleba] 1965. 390 p. [In Georgian] (MIRA 18:8)

BERAIYA, Ya. K., Cand Agr Sci -- (diss) "Basic problems of crop beds under conditions of humid sub-tropics (Kolkhidskaya depression)."  
Tbilisi, Georgian Agricultural Inst Press, 1960. 24 pp; (Ministry of Agriculture Georgian SSR, Georgian Order of Labor Red Banner Agricultural Inst); 150 copies; price not given; (XL, 17-60, 162)

BBRAK, W.

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Metallurgical Abst.  
Vol. 21 Apr. 1954  
Properties of Alloys

Copper-Titanium System. W. Trzaskowski, G. Berak, and T. Kozłowski (*Roczn. Chem.*, 1953, **27**, 426-437). (In Polish). The existence of five intermetallic compounds ( $Cu_2Ti$ ,  $Cu_3Ti$ ,  $Cu_4Ti$ ,  $CuTi$ , and  $CuTi_2$ ) was established by metallographic, thermal, and X-ray analysis of Cu-Ti alloys in the range 0-75 at.-% Ti.  $Cu_2Ti$ ,  $CuTi$ , and  $CuTi_2$  melt congruently at 903°, 882°, and 1014° C., resp.  $Cu_3Ti$  and  $Cu_4Ti$  are formed by peritectic reactions at 882° and 935° C.  $Cu_3Ti$  decomposes at 872° C. into  $Cu_2Ti$  +  $CuTi$ ;  $Cu_4Ti$  at 845° C. into  $CuTi$  +  $Cu_2Ti$ . The solubility of Ti in Cu is 6.8 at.-% at 870° C., 2.4 at.-% at 600° C., and 1.3 at.-% at 300° C. Three eutectics exist at 24 at.-% Ti (895°), 29 at.-% Ti (880°), and 70 at.-% Ti (1009° C.). The details of the phase diagram are discussed and compared with the results of other investigators (e.g. Karlsson, *J. Inst. Metals*, 1931, **79**, 391; *M.A.*, 18, 764).—S. K. L.

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Beisk J. The System Iron-Phosphorus-Cobalt  
"Система железо-фосфор-кобальт" Изв. АН УССР No 1, 1951, pp. 6-13, 20  
figs., 1 tab

The ternary system Iron-Phosphorus-Cobalt has been totally examined in the region Fe-Fe<sub>3</sub>P-Co<sub>3</sub>P by means of thermal analysis, microscopic analysis and X-rays. It has been proved that the section Fe-P-Co-P is pseudo binary. It has a peritecticum at 15% Co as well as a very narrow heterogeneous area in the solid state. In the ternary system the existence of an equilibrium line has been estab-

lished, directed from Fe<sub>3</sub>P to the side-system Cobalt-Phosphorus, up to 67% Co. The solid solutions (Fe, Co)<sub>3</sub>P are stable at room temperature from 0 to 20% Co, but from 20 to 67% Co decompose at temperature lower than 800°C. It has been demonstrated that the chemical compound Co<sub>3</sub>P is non-existent. The difference in the affinity of Iron and Cobalt to Phosphorus is very small.

BERAK, J.

Journal of Applied Chemistry  
April 1954  
Industrial Inorganic Chemistry

Copper-titanium system. W. Trzebiatowski, J. Berak, and T. Roinotowski (*Rocen. Chem.*, 1953, 27, 426-437). A Cu-Ti phase diagram is constructed on the basis of thermal, metallographical, and X-ray analysis of alloys in the range 0 to 75 at.-% Ti. The results obtained by all three methods are concordant and prove the existence of five intermetallic compounds and of three eutectic mixtures. Discovery of a new compound  $Cu_2Ti$ , and the fact that  $Cu_2Ti$  crystallizes congruently removes the main difficulties other investigators (N. Karlsson, *J. Inst. Metals*, 1951, 79, 391; A. Jonkainen *et al.*, *J. Metals*, 1953, 4, 786) had in reconciling the results of different methods of analysis. S. K. LACHOWICZ.

BERAK, J.

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Barium oxide-titanium oxide system. W. Trzebiatowski, M. Dvsa, and J. Berak (*Roczn. Chem.*, 1954, 28, 21-28).—Study of the BaO-TiO<sub>2</sub> system in the range 33-100 mol-% TiO<sub>2</sub> by method of thermal, microscopical, and X-ray analysis reveals existence of four compounds 2BaO·TiO<sub>2</sub>, BaO·TiO<sub>2</sub>, BaO·2TiO<sub>2</sub>, and BaO<sub>2</sub>·TiO<sub>2</sub>, melting at 1820°, 1810°, 1315°, and 1465° respectively. There are four eutectic mixtures of the following composition and m.p.: 44 mol-% TiO<sub>2</sub>-1585°, 65% TiO<sub>2</sub>-1310°, 68% TiO<sub>2</sub>-1305°, and 82% TiO<sub>2</sub>-1445°. The results of this work differ in many respects from the results of Stratton (*J. Chem. Phys.*, 1951, 19, 33) obtained by a micro-method.

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BERAK, J.

POL.

The platinum-rhenium system. W. Trumbull Berak and J. Berak  
 (Dull. Acad. Polon. Sci., 1951, 4, 37-40). The alloys used were  
 prepared by powder methods and sintered at 1100° in H<sub>2</sub> for 30 hr.  
 The melting points of four alloys, containing up to 50% Re, are  
 given. X-ray analysis was carried out on the powdered alloys,  
 and their hardness measured by the Vickers method. The phase  
 diagram of the system shows that Pt and Re form solid solutions  
 over wide ranges of composition. The lattice constants and hard-  
 ness are given as functions of the Re content; irregular changes  
 are found in the lattice constant of the Re phase. The hardness of  
 Pt rises markedly with the Re content, forming a flat maximum  
 at the 50% Re, 50% Pt point. D. J. C. YATES.

BERAK, J.

Platinum-rhenium system. W. Tenczowski and J. Borak (Inst. Technol., Wroclaw, Poland). *Pol. sci. paper, ser. A*, Classe III, 2, 37-40 (1964) (in English). The alloys were prepd. by powder methods with Pt produced from pure  $H_2PtCl_6$  and pure Re metal reduced with H<sub>2</sub> at 1200°. Alloys were dehd. for samples contg. 10, 20, 30, and 50% Re. The heterogeneous region of the phase diagram extends approx. from 40 to 90% Re. The m.p. of Pt rises with the Re content, but at 2450° or 30° a peritectic reaction occurs. X-ray analysis was made by powder methods. The *c* axis of the hexagonal Re cell diminishes with increasing Pt content, but the *a* axis expands.

H. Rosenwasser



Jozef Bork, JOZEF

The system BaO-TiO<sub>2</sub>, Włodzisław Terebintowski, Mirosława Dęta, and Jozef Bork (Inst. Technol. Wroclaw, Poland); *Rozprawy Chem.* 26, 111 (1954) (English summary).--The system BaO-TiO<sub>2</sub> was analyzed by microscopie, thermal, and x-ray methods within the range of 33-100 mol. % TiO<sub>2</sub>. The m.p.s. of 4 simplified compds. were: 2BaO.TiO<sub>2</sub>, 1120°; BaO.TiO<sub>2</sub>, 1610°; BaO.2TiO<sub>2</sub>, 1315°; BaO.4TiO<sub>2</sub>, 1440°. These compds. are eutectic mixts. at the following compns. and temps.: 14 mol. % TiO<sub>2</sub> at 1585°; 65 mol. % TiO<sub>2</sub> at 1210°; 68 mol. % TiO<sub>2</sub> at 1305°; and 82 mol. % TiO<sub>2</sub> at 1485°. The high-temp. transformation of BaTiO<sub>3</sub> is due to transition of the perovskite lattice into the hexagonal type, first noted by Hurlbank and Evans (cf. *C.A.* 43, 3291j). The results of this work are compared with those of Statton (cf. *C.A.* 45, 6414g). S. Nowinska,

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BETAK, J. ; ELLMAN, R.

J. BETAK, "The mechanism of Fischer-Tropsch synthesis of hydrocarbons."  
No. 3, March 1955, pp. 122-124, Chemical News (Poland).

BERAK J.

00001100207:00073

**The Influence of Physico-Chemical Properties of Carriers on the Activity of Iron Catalysts for the Synthesis of Hydrogen by the Fischer-Tropsch Method.**

Wpływ własności fizykochemicznych nośników na aktywność katalizatorów żelaznych w syntezie wodorowców metodą Fiechers-Tropscha". Przemysł Chemiczny, No. 8, 1958, pp. 433-438, 2 fig., 13 tabs.

A demonstration of the influence of physico-chemical properties of carriers on the activity of iron catalysts. The experiments conducted led to the conclusion that the degree of dispersion of carrier (expressed as a content of oxidized substance and as the peptizing ability of the carrier) is of decisive influence on the activity of the catalyst. A study was made of the changes with time of the activity of catalysts reduced with hydrogen and with water gas. The characteristics are given of the curves of relation between the activity of the catalyst and the physico-chemical properties of the carrier for the two methods of reduction.

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Benak, J.

Distr: 4E2c/4E2c(j)

The influence of physicochemical properties of the supports on the activity of iron catalysts for hydrocarbon synthesis according to Fischer-Tropsch. Benak (Politech Inst., Silesia, Poland). *Przemysl. Chem.* 34: 432-6 (1955).

The catalyst supports investigated are referred to by trade names and analyses presented for  $SiO_2$ ,  $Fe_2O_3$ ,  $Al_2O_3$ ,  $CaO$ ,  $MgO$  and loss upon heating. By measuring survival properties of these catalyst supports (presented in 12 tables) it was found that the amt. of colloidal material therein and the peptizing power of such supports play a major role with respect to the activity of this catalyst. The activity of the catalyst will change also depending upon its manner of prepn., i.e. if it was reduced with H or with producer gas. The differences in the activity due to these 2 methods of prepn. can be traced to changes occurring in the support, i.e. unsupported Fe would show the same (low) activity by either method of prepn. 10 references. Werner Jacobson

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~~The manufacture of defluorinated calcium pyrophosphites~~  
 in the light of new study of the system  $\text{CaO-P}_2\text{O}_5\text{-SiO}_2$ .  
 J. Berak (Polytech. Wroclaw, Poland). *Przemysl Chm.*  
~~1960~~ (1960).—The present state of knowledge of the  
 system is reviewed and discussed. The position of the sin-  
 tered and melted pyrophosphates and the "Thomas" phos-  
 phate meal on the ternary phase diagram  $\text{CaO-SiO}_2\text{-3-}$   
 $\text{CaO-P}_2\text{O}_5$  was detd. Silicocarnotite,  $5\text{CaO}\cdot\text{P}_2\text{O}_5\cdot\text{SiO}_2$ , is  
 the only compd. responsible for good sily. of the thernophos-  
 phosphates. A polythermal cross section is constructed on  
 the ternary diagram  $\text{CaO-P}_2\text{O}_5\text{-SiO}_2$  from the point 35%  
 $\text{P}_2\text{O}_5$ , 65%  $\text{CaO}$ , to the  $\text{SiO}_2$  point. The area of silicocarnotite  
 formation is detd. on this cross section. From con-  
 siderations of the position of this area, it is proposed to sinter  
 the phosphate with not more than 6-10% of sand at  $1400^\circ$ , in  
 the presence of water vapor. The product is to be cooled  
 slowly. The silicocarnotite is formed during cooling at  
 about  $1300^\circ$ . A fine grinding of the constituent phosphate  
 and sand, and a thorough mixing is advised, because the re-  
 action proceeds in the solid state. Starting from phosphate  
 of 35%  $\text{P}_2\text{O}_5$  and adding 7%  $\text{SiO}_2$ , a product of 33%  $\text{P}_2\text{O}_5$   
 can be achieved by the sintering method. M. li-

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BERAK, JOZEF

POLAND/Physical Chemistry - Thermodynamics, Thermochemistry, B-8  
Equilibria, Physical-Chemical Analysis, Phase Transitions.

Abs Jour : Ref Zhur - Khimiya, No 5, 1958, 13762

Author : I - Jadwiga Wojciechowska, Jozef Berak, Wlodzimierz  
Trzedziatowski. II - Jozef Berak, Jadwiga Wojciechowska.

Inst : -

Title : Study of CaO - P<sub>2</sub>O<sub>5</sub> - SiO System. I. Particular System  
3CaO.P<sub>2</sub>O<sub>5</sub> - CaO.SiO<sub>2</sub> - SiO<sub>2</sub>. II. Particular System 3CaO.  
.P<sub>2</sub>O<sub>5</sub> - 2CaO.SiO<sub>2</sub> - CaO.

Orig Pub : Roczn. chem., 1956, 30, No 3, 743-756, 757-771

Abstract : I. The systems 3CaO.P<sub>2</sub>O<sub>5</sub> - SiO<sub>2</sub> (I), 3CaO.P<sub>2</sub>O<sub>5</sub> - CaO.  
.SiO<sub>2</sub> (II) and 3CaO.P<sub>2</sub>O<sub>5</sub> - CaO.SiO<sub>2</sub> - SiO<sub>2</sub> (III) were stu-  
died by the thermal, microscopic and roentgenographic me-  
thods. The system I is a pseudobinary one. The solubili-  
ty of SiO<sub>2</sub> in the phosphate at the eutectic temperature "  
(t. eut.) of 1535° is about 2.5%, i.e., a half of what Tro-  
mel and others have given (Tromel G. and others., Z. anor-  
gan.

Card 1/4

POLAND/Physical Chemistry -- Thermodynamics, Thermochemistry, B-8  
Equilibria, Physical-Chemical Analysis, Phase Transition

Abs Jour : Ref Zhur - Khimiya, No 5, 1958, 13762

und allgem. Chem., 1948, 256, 253).  $\text{SiO}_2$  does not influence the transformation temperature (t. tr.) of  $\text{CaO} \cdot \text{P}_2\text{O}_5$ . The composition of the eutectic is: 7.5% of  $\text{SiO}_2$ , 92.5% of  $\text{CaO} \cdot \text{P}_2\text{O}_5$  at 1535°, which agrees well enough with the results of the above mentioned authors. The immiscibility region in the liquid phase is in the range of from 14 to 99% of  $\text{SiO}_2$ . The system II is a pseudobinary one, which confirms the assumption of Barrett and McCaughey (Barrett R.I., McCaughey W.J., Amer. Mineralogist, 1942, 27, 680). 65% of  $\text{CaO} \cdot \text{SiO}_2$ , 35% of  $\text{CaO} \cdot \text{P}_2\text{O}_5$  and 1420° answer to the eutectic point. The solubility at t. eq. is about 3% of calcium metasilicate in phosphate and about 4% of phosphate in metasilicate. An addition of  $\text{CaO} \cdot \text{SiO}_2$  lowers the transformation temperature of  $\text{CaO} \cdot \text{P}_2\text{O}_5$ , but does not influence the transformation temperature of  $\text{CaO} \cdot \text{SiO}_2$ . 17% of  $\text{P}_2\text{O}_5$ , 37% of  $\text{SiO}_2$ ,

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POLAND/Physical Chemistry - Thermodynamics, Thermochemistry,      B-8  
Equilibria, Physical-Chemical Analysis, Phase Transitions.

Abs Jour    : Ref Zhur - Khimiya, No 5, 1958, 13762

46% of CaO and 1380° (1350° according to Barrett) correspond to the eutectic point in the system III. The shape of the eutectic curves is similar to that observed by Barrett. The immiscibility region in the liquid phase was observed in another range than by Barrett. Bibliography 13 titles.

II. The systems  $3\text{CaO} \cdot \text{P}_2\text{O}_5 - 2\text{CaO} \cdot \text{SiO}_2$  (IV) and  $3\text{CaO} \cdot \text{P}_2\text{O}_5 - 2\text{CaO} \cdot \text{SiO}_2 - \text{CaO} \cdot \text{SiO}_2$  (V) were studied by the thermal, microscopic and roentgenographic methods. The Bredig's assumption (Bredig M., Phys. Chem., 1942, 46, 747; J. Amer. Ceram. Soc., 1950, 33, 188) was confirmed for the system IV. This is a pseudobinary and peritectic system characterized by large regions of solid solutions, chiefly of  $2\text{CaO} \cdot \text{SiO}_2$ . At 1300°, a new phase -silicocarnotite - is forming in the result of a reaction, which takes place

Card 3/4

POLAND/Physical Chemistry - Thermodynamics, Thermochemistry,                      B-8  
Equilibria, Physical-Chemical Analysis, Phase Transitions.

Abs Jour    :    Ref Zhur - Khimiya, No 5, 1958, 13762

in the solid state accompanied by a volume increase; silicocarnotite produces solid solutions also. The temperatures of polymorphous transformations of  $2\text{CaO}\cdot\text{SiO}_2$  and  $3\text{CaO}\cdot\text{P}_2\text{O}_5$  are lowered. Two four phase transformations in presence of the liquid phase are observed in the system V: a peritectic one at  $1440^\circ$  and an eutectic one at  $1415^\circ$ . 16% of  $\text{P}_2\text{O}_5$ , 31% of  $\text{SiO}_2$  and 53% of  $\text{CaO}$  correspond to a ternary eutectic. One four phase transformation occurs in the solid state at about  $1300^\circ$ . The obtained results differ from that given by Barrett (Barrett R.H., McCaughey W.I., Amer. Mineralogist, 1942, 27, 680); the proposed phase diagram is considerably simpler than that of Barrett.

Card 4/4

POLAND / Physical Chemistry. Thermodynamics. Thermo- B  
chemistry. Equilibriums. Physico-chemical  
Analysis. Phase Transitions.

Abs Jour: Ref Zhur-Khimiya, No 21, 1958, 70038.

Author : Berak, J.

Inst : ~~Not given~~

Title : A System  $MgO-P_2O_5$ .

Orig Pub: Roczn. chem. 1958, 32, No 1, 17 - 22.

Abstract: A phase diagram of the system  $MgO-P_2O_5$  was plotted in the range from 0-73 weight % of  $P_2O_5$  based on the data supplied by thermal, micro-structural and X-ray-phase analysis. Three compounds melting congruently were found:  $3MgO.P_2O_5$ ;  $2MgO.P_2O_5$  and  $MgO.P_2O_5$  at 1357,

Card 1/2

POLAND / Physical Chemistry. Thermodynamics. Thermo- B  
chemistry. Equilibriums. Physico-chemical  
Analysis. Phase Transitions.

Abs Jour: Ref Zhur-Khimiya, No 21, 1958, 70038.

Abstract: 1382 and 1165° C respectively.  $3MgO \cdot P_2O_5$   
forms solid solutions with  $P_2O_5$  of low  
concentrations, whereby the temperature of  
the polymorphic transformation is decreased  
from 1055 to 940°C.

Card 2/2

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BERAK, J

COUNTRY : Poland  
CATEGORY : H-31  
ABS. JOUR. : RZKhim., No. 1959, No. 73374  
AUTHOR : Taniowski, M.; Berak, J.  
INST. :  
TITLE : Development Trends of the USSR Industry of  
Synthetic Rubber in the Light of Some  
Research Problems  
ORIG. PUB. : Przem. chem., 1958, 37, No 11, 686-690  
ABSTRACT : Considerations concerning development of  
synthetic rubber industry in Poland, taking into account  
the USSR experience. -- V. Lenetov.

CARD: 1/1

Distr:  
4E2o/4E3d

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the system  $MgO-P_2O_5-SiO_2$ . Jadwiga Wojciszewska and Józef Berak (Politech. Wrocław, Poland). *Roczniki Chem.* 33, 21-31 (1959) (English summary). - Investigation of the partial system  $MgO-3MgO \cdot P_2O_5$  (I)- $SiO_2$  gave the following results: The section I- $SiO_2$  forms a eutectic mixt. (3.5%  $SiO_2$ , 96.5% I, 1830°) and its miscibility gap in the liquid state extends from 24 to 99%  $SiO_2$ . The sections I- $MgO \cdot SiO_2$  (II) and I- $2MgO \cdot SiO_2$  (III) have eutectic points at 20% II, 70% I, 1290°, and 30% III, 70% I, 1310°, resp. All 3 sections are quasi-binary. No noticeable soly. of  $SiO_2$ , II, and III in the phosphate phase was observed. The polymorphic transformation  $\alpha/\beta$ -I occurs at 1060°. The ternary system  $MgO-I-SiO_2$  consists of 3 partial systems: (a) I-II- $SiO_2$ , (b) I-III-II, and (c) I-MgO-III. They form the following eutectic mixts.: (a) 18%  $SiO_2$ , 39%  $P_2O_5$  (IV), 43%  $MgO$  at 1280°; (b) 18%  $SiO_2$ , 38% IV, 47%  $MgO$  at 1287°; and (c) 11%  $SiO_2$ , 39% IV, 51%  $MgO$  at 1377°. System a is characterized by an extensive miscibility gap in the liquid state. The samples of samples ranging over 10% III, particularly within the range of binary and ternary eutectics show high ability to form glass. Photomicrographs are presented. A. Kręciński.

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